REMARKS

Claims 1-40 are pending in the current application. Claims 41-76 have been withdrawn from consideration. Claims 7-9, 11, 15, 24, 25, 28, 30, 34, 37 and 38 have been amended hereby.

The Examiner has rejected claims 2, 7-9, 20, 24, 25, 30 and 37 under 35 U.S.C. § 112, second paragraph, as being indefinite. More specifically, the Examiner has objected to claims 2 and 20 as being substantially identical in scope. With regard to the remaining claims, the Examiner argues that the terms downstream and upstream should, generally, be reversed.

With regard to the scope of claims 2 and 20, it is respectfully submitted that these claims do not have a substantially identical scope. Initially, it is noted that claim 2 depends from claim 1 while claim 20 depends from claim 19 and that claims 1 and 19 are not identical in scope. Claim 1 calls for, *inter alia*, sensing the actual air flow stream velocity, while claim 19 calls for, *inter alia*, sensing the actual pressure in the air flow stream. Furthermore, claim 2 calls for adjusting the rate of introducing fibrous insulation material in response to a differential between the actual and desired air flow stream velocities while claim 20 calls for selectively adjusting the rate of introducing fibrous insulation material in response to a differential between the actual and desired air flow stream pressures. Thus, claims 2 and 20 are not substantially identical in scope and the withdrawal of the Examiner's rejection of claims 2 and 20 under 35 U.S.C. § 112 is respectfully requested.

It is further noted that claims 7-9, 11, 15, 24, 25, 28, 30, 34, 37 and 38 have been amended hereby with respect to the terms "upstream" and "downstream". It is respectfully submitted that these amendments have been done merely to make clerical corrections and clarify the language of the claims and are not made to alter the substantive scope of the claims. Consequently, currently pending claims 1-40 presented hereby point out with particularity and distinctly claim the subject matter regarded as the invention and the withdrawal of the Examiner's rejection of claims 7-9, 24, 25, 30 and 37 under 35 U.S.C. § 112 is respectfully requested.

The Examiner has rejected claims 1, 3, 5-8, 17-19, 22-30, 33-37, 39 and 40 under 35 U.S.C. § 103(a) as being unpatentable over three alternative combinations of patents. First, the Examiner cites Gerber (U.S. Pat. No. 6,364,579) in view of Zlotos (U.S. Pat. No. 6,588,988).

The Examiner argues that Gerber '579 generally discloses the subject matter of independent claims 1, 19 and 28 but lacks sensing or control action. The Examiner cites Zlotos '988 in an attempt to rectify this deficiency of Gerber '579 arguing that Zlotos teaches measuring fluid pressure/velocity. The Examiner further argues, *inter alia*, that any real world sensor that measures pressure also measures velocity.

Secondly, the Examiner cites Gerber (U.S. Pat. No. 6,364,579) in view of Gerber et al. (U.S. Pat. No. 6,092,747) arguing that Gerber et al. '747 teaches adjustment of the feed rate specifically mentioning Figure 6 of Gerber et al. '747.

Third, the Examiner cites Gerber (U.S. Patent No. 6,364,579) in view of Toyota et al. (U.S. Pat. No. 5,487,624) arguing, with regard to claims 9 and 34, that Toyota et al. '624 teaches a metering orifice 180.

The claims rejected by the Examiner include three independent claims, i.e., claims 1, 19 and 28. Claim 1 calls for a method of conveying fibrous insulation material that includes providing an air flow stream, selectively introducing fibrous material into the air flow stream whereby the material can be selectively conveyed for application as insulation, sensing the actual air flow stream velocity, and comparing the actual air flow stream velocity with a desired air flow stream velocity and selectively adjusting the air flow stream in response to a differential between the actual and the desired air flow stream velocities.

With regard to the first combination of references advanced by the Examiner, it is initially noted that Gerber '579 discloses a separator that removes fibrous material from an air flow stream rather than introducing fibrous material into the air flow stream. The Examiner also cites Zlotos '988. The Zlotos '988 reference discloses a vacuum conveying system for bulk material. The disclosed conveying system includes a pressure measuring device 7 which measures the pressure in conveying line 4 and a control arrangement 8 that regulates the addition of conveying air through control valve 9 and air inlet 3 into conveying line 4. A suction tube 2 is connected with conveying line 4 and is used to intake bulk material from within vessel 1. See col. 3. By bleeding air into a vacuum line to control the negative pressure, the system disclosed by Zlotos '988 can be used to provide an anti-plugging system which reduces the negative pressure when it exceeds a predetermined value and thereby also reduce the corresponding material pickup rate and prevent plugging. This type of system depends upon the air to material

ratio and fluidization of the bulk material being conveyed and could result in a widely fluctuating material flow rate.

The Examiner considers the measurement of pressure by a real world sensor, as exemplified by Zlotos '988, to be the equivalent of the step of sensing the actual air flow stream velocity called for in claim 1 of the present application. The Examiner's conflation of the measurement of a pressure with that of a velocity in fluid flow is overly broad in its application to the present claims. While in some situations where a pure fluid flow takes place at nearly constant temperature such a conflation may be possible, the pragmatic real world conditions experienced by a conveyance system for fibrous insulation do not provide such a situation. Even assuming, for arguendo purposes only, that it may be possible to equate the measurement of pressure with that of velocity in an air stream used for conveying material at a highly dilute air to material ratio, the Examiner's conclusion lacks support with respect to the claims of the present application. A system for applying fibrous insulation material is typically subjected to an air supply having a temperature and moisture content that may vary over a wide range and include downstream system components that may have substantial and varying air leakage. Thus, a single pressure measurement of the air flow by itself, while related to the velocity of the air flow is also dependent upon other factors which may vary widely and cannot be considered the equivalent of the measurement of the actual velocity of the air flow in a system for applying insulation material.

It is further noted that present application implicitly rebuts the Examiner's conflation of the measurement of a pressure of the air flow in a system for applying insulation material with the measurement of the velocity of the same air flow. More specifically, the present application, at page 16, lines 5-16, discloses an embodiment that is described as measuring the velocity of the air flow based upon the output of transducer 96 which is a function of the differential of two pressure measurements taken on opposite sides of metering orifice 84. In contrast, the pressure of the air flow is determined based upon a single pressure measurement output by pressure transducer 102. (It is noted that the described embodiment merely provides one example of the claimed subject matter and is not an exhaustive illustration of the claimed subject matter.)

Neither Gerber et al. '747 nor Toyota et al. '624 rectify this deficiency. Gerber et al. '747 does disclose the use of a pressure transducer 90 but solely for pressure measurements and

not the determination of the actual velocity of an air flow stream as called for in claim 1 of the present application.

With regard to Toyota et al. '624, the Examiner has cited this reference for disclosing a measurement capillary 180. The apparatus disclosed by Toyota et al. '624, however, is simply not applicable to the claims of the present application which concern methods of conveying fibrous insulation material. The apparatus of Toyota et al. '624 finds application where it is necessary to "correctly supply a relatively small amount, e.g., several tens to several hundred grams per minute, of an expensive powder material". See col. 1, lines 15-18 (describing conventionally known systems). The demands of conveying fibrous insulation material, which involves the dense phase transport of insulation material which may be on the order of 100 pounds per minute, require the method of conveying such material to work with varying conditions such as air having variable temperature and humidity values. In contrast, the apparatus of Toyota et al. '624 is concerned with the dilute phase transport of a small amount of expensive powder where the use of a carrier gas that is pre-dried and conditioned to a nearly constant temperature would be expected. Moreover, the dilute phase powder used with the apparatus of Toyota et al. '624 is conveyed through the measurement capillary 180. Toyota et al. '624 does not suggest how such a device for precisely measuring a dilute phase powder could be altered for use in an apparatus for conveying insulation material. Simply put, one could not expect a person having ordinary skill in the art to adapt the features of the apparatus of Toyota et al. '624 to a method of conveying insulation material.

Thus, claim 1 is patentably distinct over the cited references and the allowance of claim 1, and claims 3, 5-8, 17 and 18 which depend therefrom, is respectfully requested.

Independent claim 19 of the present application calls for a method of conveying fibrous insulation material that includes providing an air flow stream, selectively introducing fibrous insulation material into the air flow stream whereby the material can be selectively conveyed for application as insulation, sensing the actual pressure in the air flow stream, and comparing the actual air flow stream pressure with a desired air stream pressure and selectively adjusting the air flow stream in response to a differential between the actual and the desired air flow stream pressures.

With regard to the first grounds of rejection advanced by the Examiner, i.e., the

combination of Gerber '579 and Zlotos '988, the Examiner acknowledges that Gerber '579 does not disclose a sensing or control action. The Examiner argues that Zlotos '988 rectifies this deficiency. Zlotos '988 does disclose the use of a pressure measuring device 7 with a vacuum conveying system for bulk materials and the control of air flow through valve 9. However, Zlotos '988 uses this arrangement with a suction tube 2 that is positioned to intake a bulk material. The intake of bulk material through suction tube 2 appears to be accomplished in an uncontrolled, i.e., non-selective manner. Consequently, the use of pressure measuring device 7 and valve 9 helps prevent plugging in conveyance tube 4 which might otherwise result from the uncontrolled intake of material through suction tube 2. The method of claim 19 calls for selectively introducing fibrous material into an air flow stream in addition to measuring the actual pressure of the air flow stream and adjusting the air flow stream in response to a differential between the actual and the desired air flow stream pressure. Taken individually or in combination, neither Gerber '579 nor Zlotos '988 suggest combining both of these features together in a single method. Futhermore, neither of these references suggest the subject matter of claim 20 which further calls for the selective adjustment of the rate of introducing fibrous insulation material into the air flow stream in response to a differential between the actual and desired air flow stream pressures.

The second basis advanced by the Examiner in rejecting claim 19 is the combination of Gerber '579 with Gerber et al. '747. Figure 6 of Gerber et al. '747 is specifically cited by the Examiner for disclosing the adjustment of the feed rate. Gerber et al. '747, however, fails to disclose the adjustment of the air flow stream in response to a differential between the actual pressure of that air flow stream and a desired pressure for the air flow stream. It is further noted that while the Examiner has cited various references that measure and control different aspects of systems which convey solid materials with a gaseous fluid stream (e.g., the measurement of a pressure and the control of a feed rate), different measurements and controls may be employed for the same purpose. For example, one such purpose might be to prevent the plugging of the conveyance line and without some suggestion found within the prior art it would not be obvious to combine different measurements and controls in a single system when such combinations could lead to undesirable and expensive redundancies in that system.

With regard to the Examiner's third basis of rejection, Toyota et al. '624 is not relevant to

a method of conveying fibrous insulation for the reasons discussed above and cannot be properly combined with Gerber '579.

Thus, claim 19 is patentably distinct over the cited references and the allowance of claim 19, and claims 20-27 which depend therefrom, is respectfully requested.

Independent claim 28 of the present application calls for a method of conveying and vacuuming fibrous insulation material that includes the steps of providing an air flow stream downstream of a blower and an air vacuum stream upstream of said blower, selectively introducing fibrous insulation material into the air flow stream thereby conveying the material for application as insulation, vacuuming fibrous insulation material with said air vacuum stream, and separating the vacuumed material from the air vacuum stream prior to said air vacuum stream entering said blower.

Thus, claim 28 is directed towards a method wherein there is a blower with an air flow stream downstream of the blower and an air vacuum stream upstream of the blower and the air flow stream is used to convey fibrous insulation material and the air vacuum stream is used to vacuum fibrous insulation material. While both vacuuming and conveying fibrous insulation are individually known, the conveyance for application and the vacuuming of fibrous insulation materials are conventionally done with separate apparatus and using separate blowers. For example, Gerber, U.S. Patent No. 6,364,579 discloses a separating apparatus that can be used with a vacuum system and separates fibrous material from the vacuum stream while Gerber et al., U.S. Patent No. 6,092,747 discloses a system that introduces fibrous material into an air stream and can be used to convey the insulation for application. Neither of these references suggest combining their separate functions in the manner set forth in claim 28. Neither do any of the other references cited by the Examiner provide such a suggestion either individually or in combination.

Thus, the allowance of claim 28, and claims 29-40 which depend therefrom, is respectfully requested.

The Examiner has objected to claims 4, 10-16, 21, 31, 32, 35 and 38 as being dependent upon a rejected base but stated that the subject matter of these claims is allowable. Because the relevant base and intervening dependent claims are all allowable as set forth above, claims 4, 10-16, 21, 31, 32, 35 and 38 are allowable without being rewritten in independent form and the

allowance of these claims is respectfully requested.

In the event Applicant has overlooked the need for any extension of time or payment of fee, Applicant hereby petitions therefor and authorizes that any charges be made to Deposit Account No. 16-0248, Pappas Law Offices. Should the Examiner have any further questions regarding any of the foregoing, the Examiner is respectfully invited to telephone the undersigned at (260) 426-2340.

Applicant respectfully requests that a timely Notice of Allowance be issued in this application.

Respectfully submitted,

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